UNITED STATES DEPARTMENT OF AGRICULTURE AGRICULTURAL RESEARCH SERVICE

in cooperation with

STATE AGRICULTURAL EXPERIMENT STATIONS

Results from the

UNIFORM OATS WINTER HARDINESS NURSERY

2006-2007

Compiled by

D. P. Livingston, Research Agronomist
T. D. Tuong, Plant Science Research Technician
R. Premakumar, Chemist

This is a joint progress report of an investigation underway in the State Agricultural Experiment Stations and the Agricultural Research Service of the U. S. Department of Agriculture. It contains preliminary data which have not been sufficiently confirmed to justify general release; interpretations may be modified with additional experimentation. Confirmed results will be published through established channels. The report is primarily a tool for cooperators, their staff and those with special interest in agricultural research program development.

This report was compiled by the Agricultural Research Service, U. S. Department of Agriculture, and is not intended for publication nor should it be referred to in literature citations or quoted in publicity or advertising. Use of the data may be granted for certain purposes upon written request to the agency or agencies involved.

USDA-ARS South Atlantic Area Department of Crop Science North Carolina State University Raleigh,NC 27695

CONTENTS

Cooperating Agricultural Experiment Stations and Personnel	Page 2
Digest and Comments	3
Top Ten Ranked Survival Entries	4
Table 1. Entries in the 2006-2007 Uniform Oat Winter Hardiness Nursery	5
Table 2. Percent Survival at the Various Stations (sorted by entry no.)	6
Table 3. Percent Survival at the Various Stations (sorted by rank)	7

COOPERATING AGRICULTURAL EXPERIMENT STATIONS AND PERSONNEL

Country	State	AES Location	Personnel
USA	SC	Clemson	B.Edge
USA	ID	Aberdeen	D.Obert
USA	VA	Blacksburg	C.A.Griffey
USA	TN	Knoxville	D.West
USA	NC	Laurel Springs	J.P.Murphy
USA	KS	Salina	M. Hagny
USA	AR	Faytteville	R. Bacon
USA	KS	Manhattan	R. Brengman
Turkey	Eskisehir	Agric. Research Institute	E. Ozdemir
Turkey	K.Maras	KSU Field Crops Department	T. Dokuyucu
Lithuania	Kauno raj- Akademija	Lithuanian Univ. of Agriculture	A. Sliesaravicius
Poland	Blonie	Plant Breeding and Acclimatization Ins.	B. Lapinski/W. Podyma
UK	Wales	IGER-Welsh Plant Breeding Station	J. Valentine
Czech Republic	Kromeriz	Cereal Research Institute	L. Nedomova
Hungary	Martonvasar	Agric. Res. Inst. of Hungary Academy of Science	O. Veisz
Autria	Zwettl	Saatzucht Edelhof	S. Berger

Digest and Comments

DIGEST

NUMBER OF TESTS: 16 tests (8 US States, 8 foreign countries)

NUMBER OF ENTRIES: 12

EXPERIMENTAL DESIGN: Single-row, 5-foot plot

Two replications

Randomized complete block

DATA RECORDED: Percent winter survival

DATA NOT USED IN ANALYSIS: Clemson, SC Data not received

Lithuania Data not received Wales, UK Data not received K. Maras, Turkey Data not received Aberdeen, ID 0% Survival Blonie, Poland 100% Survival Blacksburg, VA 100% Survival Knoxville, TN 100% Survival Czech Republic 100% Survival Hungary 100% Survival Fayetteville, AR 100% Survival Austria 100% Survival Salina, KS Seed not planted

Eskisehir, Turkey No nursery for 2006-2007

COMMENTS:

US STATE/COUNTRY	LOCATION	COOPERATORS' COMMENTS
TN	Knoxville	Very mild winter.
VA	Blacksburg	Had mild weather in Blacksburg until January
Kromeriz	Czech Republic	Winter was extremely warm, nearly no frost, no snow.
Martonvasar	Hungary	Winter was extremely warm mild
Saatzucht Edelhof	Austria	very warm winter; very few days with little snow; no closed layer of snow

Top 10 ranked survival entries for 2006-2007

Rank		Entry	Pedigree	% Survival (across locations)
1	1	Fulgum (ck)	CI 708	100
2	2	Norline (ck)	CI 6903	100
3	7	Win/Nor-10b	Selection from Win/Nor-10	100
4	4	Wintok (ck)	CI 3424	100
5	5	Win/Nor-1	Wintok x Norline	100
6	6	Win/Nor-10	Wintok x Norline	100
7	3	Winter Turf (ck)	CI 3296	75
8	8	NC01-3497 \	NC93-2978/Rodgers//Rodgers/FL874	4
9	9	NC03-2421	Rodgers/Txab29923//Rodgers	4
10	10	NC03-2429	Rodgers/Txab29923//Rodgers	4
			LSD (0.05)	3.6

Entry No	Entry name	Pedigree	Yrs in Nursery	Contributors	
1	Fulgum (ck)	CI 708	69		
2	Norline (ck)	CI 6903	46		
3	Winter Turf (ck)	CI 3296	66		
4	Wintok (ck)	CI 3424	66		
5	Win/Nor-1	Wintok x Norline	4	Livingston, Murphy	NC
6	Win/Nor-10	Wintok x Norline	4	Livingston, Murphy	NC
7	Win/Nor-10b	Selection from Win/Nor-10	3	Livingston, Murphy	NC
8	NC01-3497	NC93-2978/Rodgers//Rodgers/FL874	2	Murphy	NC
9	NC03-2421	Rodgers/Txab29923//Rodgers	1	Murphy	NC
10	NC03-2429	Rodgers/Txab29923//Rodgers	1	Murphy	NC
11	NC02-8247	NC91-6448/STH01293//NC92-6324	1	Murphy	NC
12	NC02-8331	NC93-2978/FL874S1G3//ARFOB3D	1	Murphy	NC

Ent.	Entry	Ranked	Means
No.	Name	Means	across loc
1	Fulgum (ck)	1	100
2	Norline (ck)	2	100
3	Winter Turf (ck)	7	75
4	Wintok (ck)	4	100
5	Win/Nor-1	5	100
6	Win/Nor-10	6	100
7	Win/Nor-10b	3	100
8	NC01-3497	8	4
9	NC03-2421	9	4
10	NC03-2429	10	4
11	NC02-8247	11	4
12	NC02-8331	12	4
	Average		57.9
	LSD (0.05)		3.6
	CV(%)		1.6

Ent.	Entry	Ranked	Means
No.	Name	Means	across loc
1	Fulgum (ck)	1	100
2	Norline (ck)	2	100
7	Win/Nor-10b	3	100
4	Wintok (ck)	4	100
5	Win/Nor-1	5	100
6	Win/Nor-10	6	100
3	Winter Turf (ck)	7	75
8	NC01-3497	8	4
9	NC03-2421	9	4
10	NC03-2429	10	4
11	NC02-8247	11	4
12	NC02-8331	12	4
	Average		57.9
	LSD (0.05)		3.6
	CV(%)		1.6